

Homework 5.3

1. Complete the following table on corrosion-prevention techniques.

Method of Corrosion Protection	Description
a)	Increasing the protective outer layer on the outside of aluminium
b)	Old-fashioned method of protecting steel food cans. Unreactive tin layer on outside of steel can prevents air & water getting to steel can
c)	Physical barrier to prevent air and water getting top metal underneath.
d)	
e)	
f)	Coating iron metal with zinc. Zinc protects iron underneath.
g)	Using electricity to coat a metal in a less reactive metal

7

2. a) To protect iron from rusting, a reactive metal should be attached to it.

1

b) Name a metal which will protect iron when attached to iron.

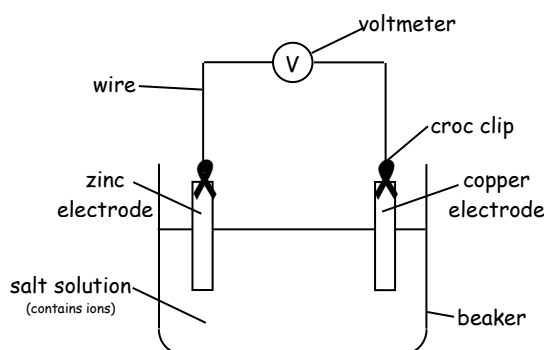
1

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3. Look at the following cell which produced a voltage of 1.2V.

a) What would happen to the voltage if the copper electrode was replaced with a silver electrode.(see page 6 of data booklet)

.....



1

b) The zinc metal electrode was replaced with an unknown metal X. The voltage between the metal X electrode and the copper electrode was 0.5V.

Using page 6 of the data booklet, suggest a name for metal X

.....

1

4. a) The electricity from a battery is formed as a result of a
..... 1
- b) Batteries 'run out' when the chemicals inside the battery
are 1
- c) Lead acid batteries and nickel-cadmium batteries are both examples of
..... batteries. 1
- d) What is the purpose of the ion solution inside a battery?
..... 1

total
15